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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,672	08/16/2006	Hugues Lefevre	4004-070-30 NATL	4087
30448	7590	01/22/2009		
AKERMAN SENTERFITT P.O. BOX 3188 WEST PALM BEACH, FL 33402-3188			EXAMINER GREEN, TELLY D	
			ART UNIT 2822	PAPER NUMBER
			MAIL DATE 01/22/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/541,672		LEFEVRE, HUGUES	
	Examiner		Art Unit	
	TELLY D. GREEN		2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim **22-27, 31 and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Varaprasad et al. (Varaprasad) (**US Publication 2003/0087107 A1**) in view of Brussog (**US Patent 6,270,236 B1**).

In regards to claim 22, Varaprasad discloses (paragraphs 150-156, Figs. 1, 2) two glass sheets (items 2 and 3) (paragraphs 208, 223, 225, 238, 246, 253, 260, 268, 290, 312, 323, 331) and one or more thermoplastic interlayers (paragraph 124, 149, 158), characterized in that diodes (light-emitting, organic light-emitting, etc.) or are inserted between the two glass sheets (items 2 and 3) (paragraphs 162, 188), a connecting circuit (item 4) being formed from a least one conductive layer deposited on one face of the glass sheets or of the thermoplastic interlayers (paragraphs 150- 156, Figs. 1, 2), but does not specifically disclose the conductive layer being divided in at least 2 distinct areas, each area being bound to an electrode.

Brussog discloses LED's (item 6) on a transparent carrier panel (item 2) made of glass or plastic; a conductive layer (item 3) being divided in at least 2 distinct areas (grooves, item 4) (col. 2, lines 1-67, col. 3, lines 1-30), each area being bound to an electrode (item 17).

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Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings above for the purpose of reducing the manufacturing and design complexity of the lighting units having LED's, in particular with regard to different shapes and dimensions of lighting units.

In regards to claim 23, Varaprasad discloses (**paragraphs 152, 167, Fig. 1**) that the conductive layer (**item 4**) has a thickness in the range of between 0.02 and 0.5 micro/between 0.2 and 0.4 micro.

However, the applicant has not established the critical nature of the conductive layer having a thickness in the range of between 0.02 and 0.5 micro/between 0.2 and 0.4 micro. “The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.” *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990).

In regards to claim 24, Varaprasad discloses (**paragraphs 153-155**) that the conductive layer has a resistance in the range of between 2 and 80, 10 and 80, or 12 and 20 $\Omega/\text{sq.}$.

However, the applicant has not established the critical nature of the conductive layer having a resistance in the range of between 2 and 80, 10 and 80, or 12 and 20 $\Omega/\text{sq.}$ “The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves

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unexpected results relative to the prior art range.” In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990).

In regards to claim 25, Varaprasad discloses (**paragraphs 173-175, Fig. 1**) that the conductive layer is applied on the transparent substrate and zones have been insulated from the rest of the layer by narrow insulating bands.

In regards to claim 26, Varaprasad discloses (**paragraphs 173-175**) that a) the insulating bands have a width in the range of between 0.01 and 3 mm, (b) the insulating bands have a width in the range of between 0.05 and 1.5, and (c) the insulating bands have a width in the range of between 0.1 and 0.8 mm.

However, the applicant has not established the critical nature of a) the insulating bands have a width in the range of between 0.01 and 3 mm, (b) the insulating bands have a width in the range of between 0.05 and 1.5, and (c) the insulating bands have a width in the range of between 0.1 and 0.8 mm. “The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.” In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990).

In regards to claim 27, Varaprasad discloses electronic components (**paragraphs 162, 188**), but does not specifically disclose the electrical components have a thickness less than or equal to 3mm or less than or equal to 0.1 and 1.2mm.

Brussog discloses reducing the manufacturing and design complexity of the lighting units having LED's, in particular with regard to different shapes and dimensions of lighting units/electrical components (**col. 1, lines 49-53**).

However, the applicant has not established the critical nature of the electrical components having a thickness less than or equal to 3mm or less than or equal to 0.1 and 1.2mm. "The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have various ranges for the purpose of having a sufficient thickness that would allow the use of more electronic devices/components (LEDs).

In regards to claim 31, Varaprasad discloses (**paragraphs 173-175, 189, Fig. 1**) that a switch actuating the power supply of the electronic component is formed by a zone of the conducting layer insulated from the rest of the conductive layer by narrow insulating bands.

In regards to claim 32, Varaprasad discloses (**paragraphs 124, 149, 158, 162, 188, Fig. 1**) in which LEDs are inserted in at least on of said one or more thermoplastic interlayers during the production of the laminated glazing.

Claims **28-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Varaprasad et al. (Varaprasad) (**US Publication 2003/0087107 A1**), in view of Brussog (**US Patent 6,270,236 B1**), as applied to claims 22-27, 31 and 32 above, and further in view of Schaffer (**US Patent 6,283,613 B1**).

In regards to claim 28, Varaprasad's invention as modified by Brussog discloses all of the claim limitations above except for a casing.

Schaffer discloses an array of LED's in a casing (**col. 4, lines 51-55, claim 1**).

Therefore it would have been obvious to one of ordinary skill at the time of the invention to combine the teachings above for the purpose of luminosity, protection, space, cost and a thermal connection for heat conduction away from the LED and semiconductor.

In regards to claim 29, Varaprasad's invention as modified by Brussog and Schaffer discloses all of the claim limitations above except that the casing is dimensioned such that the length and/or a width are at least 10/20/40-times larger than its thickness.

However, the applicant has not established the critical nature of the length and/or a width being at least 10/20/40-times larger than its thickness (open ended range). "The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have various ranges for the purpose providing a case with the necessary length/width to cover or protect the electronic components/chips.

In regards to claim 30, Varaprasad's invention as modified Brussog and Schaffer discloses all of the claim limitations above, but does not specifically disclose that the casing is dimensioned such that the length and/or a width in the range between 5 and 100mm/15 and 75mm/25 and 50mm.

However, the applicant has not established the critical nature of the casing having dimensions such that the length and/or a width are in a range between 5 and 100mm/15 and 75mm/ 25 and 50mm.. “The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.” In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have various ranges for the purpose providing a case with the necessary length/width to cover or protect the electronic components/chips.

Response to Arguments

Applicant's arguments with respect to claims 22-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TELLY D. GREEN whose telephone number is (571)270-3204. The examiner can normally be reached on Monday thru Friday 7:30 AM - 5:00 PM EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Telly D Green/
Examiner, Art Unit 2822
January 8, 2009

/N. Drew Richards/
Supervisory Patent Examiner, Art Unit 2895